

Application No.: 10/660435
Docket No.: AD6912USNA

Page 2

Amendments to Claims

1. (Currently Amended) A composition comprising a melt blend with improved compatibility containing (a) a matrix material of about 45% to 94.5% by weight of a crystalline thermoplastic polyacetal; (b) about 0.5% to 30% by weight of mineral filler having an equivalent spherical diameter of about 0.05 to less than 10 micrometers and (c) about 5% to 25% by weight of an elastomer comprising thermoplastic polyurethane (TPU) or polyether polyester thermoplastic polymers, wherein the weight percentages are based on the total weight of the composition.

2. (Currently Amended) A composition according to claim 1, wherein the melt blend is preferably (a) a crystalline thermoplastic polyacetal of about 90% to 85% by weight % (b) about 5% to 10% of mineral filler having an equivalent spherical diameter of about 0.05 to less than 10 micrometers by weight and (c) about 5% to 10% by weight of the elastomer comprising thermoplastic polyurethane (TPU) or polyether polyester thermoplastic polymers, wherein the weight percentages are based on the total weight of the composition.

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Original) A composition according to claim 1 or 2, wherein the mineral filler is selected from the group consisting of calcium carbonate (CaCO₃), oxides, sulfates, titanates, kaolin clay, silicates, magnesium hydroxide, carbon black and combinations thereof.

8. (Original) A composition according to claim 7, wherein the oxides are selected from the group consisting of aluminum oxides, silicon oxides, and titanium dioxide (TiO₂).

9. (Original) A composition according to claim 7, wherein the sulfates are barium sulfate.

10. (Original) A composition according to claim 1, wherein the mineral filler is CaCO₃ or TiO₂.

Application No.: 10/660435
Docket No.: AD6912USNA

Page 3

11. (Currently Amended) A composition according to claim 1, wherein the mineral filler is preferably CaCO₃.

12. (Original) A composition according to claim 1, wherein the matrix material is an acetal copolymer.

13. (Original) A composition according to claim 1, wherein the matrix material is an acetal homopolymer.

14. (Original) A composition according to claim 1 or 2, wherein said mineral filler contains a coating, said coating being a non-aromatic organic acid, a salt, ester, ether, epoxy, or a mixture thereof.

15. (Currently Amended) A composition according to claim 1, wherein the melt blend is preferably (a) a crystalline thermoplastic polyacetal of about 90% - 60% by weight, wherein said crystalline thermoplastic polyacetal comprises polyoxymethylene; (b) about 5% -20% by weight of mineral filler, wherein said mineral filler comprises CaCO₃ or TiO₂; and (c) about 5% - 20% by weight of the elastomer, wherein said elastomer comprises thermoplastic polyurethane or polyether polyester thermoplastic polymers.

16. (Currently Amended) A composition according to claim 1, wherein the melt blend is more preferably (a) a crystalline thermoplastic polyacetal of about 90% -75% by weight, wherein said crystalline thermoplastic polyacetal is polyoxymethylene; (b) about 5% -15% by weight of a mineral filler; wherein said mineral filler comprises CaCO₃ or TiO₂ and (c) about 5% -10% by weight of the elastomer, wherein said elastomer comprises thermoplastic polyurethane or polyether polyester thermoplastic polymers.

17. (Canceled)

18. (Currently Amended) A composition comprising a polyacetal polymer with about 0.5% - 30%, by weight of a mineral filler, the filler having an average equivalent spherical diameter in the range of 0.05 to less than 10 micrometers, and about 5% to 25% by weight of an elastomer, relative to the total amount of elastomer and polyacetal, said mineral filler having an equivalent spherical diameter of about 0.05 to less than 10 micrometers being present in a ratio of about 0.1X to 3X by weight of the elastomer, the elastomer being in a ratio to the matrix resin of 5% to about 25% by weight, and wherein the elastomer comprises thermoplastic polyurethane (TPU) or polyether polyester thermoplastic polymers

Application No.: 10/660435
Docket No.: AD6912USNA

Page 4

19.(currently amended) A composition according to claim 18, wherein the average spherical diameter of said mineral filler is preferably in the range of 0.05 to less than 4 micrometers.

20. (currently amended) A composition according to claim 19, wherein the average spherical diameter of said mineral filler is most preferably in the range of 0.05 to 2 micrometers.

21. (original) A composition according to claim 18 or 19 or 20, wherein said mineral filler is a single grade.

22. (original) A composition according to claim 18 or 19 or 20, wherein said mineral filler is a blend of at least two grades.

23. (currently amended) A composition according to claim 21 or 22, wherein said mineral filler having a coating of a non-aromatic organic acid, a salt, ester, ether, epoxy, or a mixture thereof, at a concentration of at least 0.5% by weight of the mineral filler.

24. (currently amended) An article made from a composition according to claim 1 or 18 one of claims 1-23.

25. (new) A composition according to claim 22, wherein said mineral filler having a coating of a non-aromatic organic acid, a salt, ester, ether, epoxy, or a mixture thereof, at a concentration of at least 0.5% by weight of the mineral filler.